

Abstract Submitted
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Measurement of the cross section in $t\bar{t}$ + jets using a multivariate kinematics fit method with the ATLAS detector BABAK ABI, Oklahoma State University, ATLAS COLLABORATION — A measurement of the production cross-section for $t\bar{t}$ events with an additional jet ($t\bar{t}$ + jet) is presented, using 5.0 fb^{-1} of data collected by the ATLAS detector at $\sqrt{s} = 7 \text{ TeV}$ at the LHC in 2011. The measurement is performed in the semileptonic decay channel ($t\bar{t} \rightarrow \ell\nu b b j j$) with electrons or muons in the final state. A multivariate kinematic approach is used in order to extract the background events, a 2D likelihood is formed to simultaneously measure the $t\bar{t}$ + jet and inclusive $t\bar{t}$ cross-sections.

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